

# New Concepts in Warehousing

## A Retail Owned Cooperative

Food 70's

The President of a growing cooperative wholesale firm tells of his warehouse expansion problems

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I would like to give you an idea of what goes through the mind of a Chief Executive Officer of a company that is doing in excess of Two Hundred Million Dollars a year at wholesale when he runs out of space. We have two warehouses, one in Kansas City, Kansas, which is 422,000 sq. feet right now and one in Springfield, Missouri, that is well over 200,000 sq. feet. Our Kansas City facility does in excess of \$150,000,000 per year and our Springfield Division does in excess of \$50,000,000 per year. Going back when I first came to Kansas City which is about 14 years ago, our company was doing about 12 million dollars a year out of Kansas City warehouse and about 4 million dollars a year out of the Springfield warehouse. We operated, out of a three story warehouse in Kansas City, Mo., of about approx. 50,000 sq. feet. We moved into a new facility on one floor of 200,000 sq. ft. at the time we were doing 12 million dollars. When we moved into the 200,000 sq. ft. building business was very good and we finally found that we had to add on to this building. We added an additional 207,000 sq. ft. Our original building was an old GSA building that was remodeled for us and we had part 14 ft. ceiling height and part 20 ft. ceiling height. In the new building we put in 22 ft. ceiling height, this was about 8 years ago. Today our business has expanded and we find ourselves out of space.

When you plan a warehouse you plan your aisles and you plan the end of the aisle where an order filler makes his turn and we have a tow chain and then as your business increases and you have to carry more inventory you find that you have some space at the end of the aisle so you put a pallet load of storage there which means that that order filler has to make that turn and walk an extra 3 or 4 feet everytime he goes around that corner. Your business continues to increase and you find you have room for one more pallet load in storage so that means you have to walk around 2 pallets but lo and behold, only got about 2 feet from the end of that pallet until the tow chain and if there are carts on the tow chain, he has to wait for that cart to go by and if there is not another cart coming by then he can make that turn. Sometimes there are a lot of carts on there and those carts are pretty heavy so he has to wait and meanwhile 3 or 4 other fillers wait behind him.

The nature of our Kansas City business where we service 500 stores is such that 250 buy \$1,000 a week or less. We have some stores that do in excess of \$100,000 a week so we may have some very large orders and some very small orders. We may have an order filler that is filling a large order and is stopping at every slot filling 2 or 3 cases and then we have another order filler behind him that is filling an order for several small stores and he needs only one case per aisle. So he is waiting to get past the first order filler and there are 3 more waiting behind him. From this you can see the inefficiencies of our operation when we have to block that turnaround with those 2 pallet loads of merchandise. This is what we're faced with today and we find that our order filling is down to about 100 pcs. per man hour because of these inefficiencies in our operation. We have a narrow aisle operation with 9 ft. straddle trucks so when one order filler wants to pass another filler he can't get past. Of course if the first order filler got over to the side others could get past him but he's not about to go to the trouble of doing that. Also the guy behind him isn't going to ask him to go to the side because he can wait and get some overtime. This is what we're facing today.

Now in planning our next new facility in Kansas City, we can put in an addition, but we went through that 3 years ago in our Springfield division when we had well over 100,000 sq. ft. We had to put another addition on this building or go into a new facility because our business was increasing. My judgment at that time was that we originally had 75,000 sq. ft., we had added 25,000 sq. ft. in an addition to this building and we could add another 100,000 sq. ft. since we had the ground. That's what we needed, about 200,000 sq. ft. However, I think you have to project into the future. What would happen when we became too large for this 200,000 sq. ft. We would be in trouble and our 200,000 sq. ft. warehouse is harder to sell than a 100,000 sq. ft. warehouse. We could visualize possibly 5, 8 or 10 years ahead that when we ran out of space we would have no place to go. Our decision was not to enlarge this warehouse but to find a new plot of ground and plan a warehouse that allowed for future expansion. This we did. We bought 31-1/2 acres of ground. We built a 207,000 sq. ft. warehouse and lo and behold here it is 3 years later, we have over a 60% increase in business and we are now planning a 150,000 sq. ft. addition to our Springfield division. So our judgment was right not to spend that money to add that 100,000 sq. ft. to our old building, but to go into a new building and plan the complexes to what it will be 5, 10 to 15 years from now. We now are facing the same problem in Kansas City. We are building our new building--what do we do as far as planning for the future. I have here a floor plan that I hope all of you can see. We are doing about one million seven to one million eight right now in dry grocery volume but in '71 when we move into this new warehouse our dry grocery volume will be about 2 million dollars per week. Breaking that down to an average case of merchandise which at that time we project will be about \$5. per case we are talking about 400,000 cases per week or 80,000 cases per day on a 5 day week. If we go to an automated system we feel that 25 order fillers picking 400 pieces per man hour can handle that business. That means that we are getting 3200 cases per day per order filler. That's 400 cases per hour, 8 hours a day, 3222 cases per day per order filler, so 25 order fillers gives you that 80,000 cases per day.

If we go back to the conventional system and if we determine that we are not going to go into an automated system we calculate our productivity this way. Today we are getting 100 pieces per man hour. We feel that if we eliminate those 2 pallets at the end of the rack because we have plenty of space now, we will have an efficiency factor of approximately + 25% so our 100 pieces per man hour will become 125 pieces per man hour. Now the union is not going to let you get just a certain amount. I remember a problem we had at one time where we had one order filler that was picking 180 pieces per man hour and another order filler was picking 80 pieces per man hour. We called the order filler that was picking the 80 pieces per man hour and told him what the problem was, that he was not picking enough and that we should at least get an average of about 150. He thanked us very much and said he would try to do the best he could. The next day we got a call from the union official. "What's your problem? Why did you call this order filler in?" We told him the story. He said, "Well I didn't know you had a problem. We'll take care of that." He did; the next day everybody picked 80 pieces per man hour. We finally talked to the union officials and they said, "What's going on here? What are we going to tell these boys out there? This guy was picking 180 pieces per man hours, he had no business doing it. He's making it tough for some of the older boys who can't do that. You had a problem and we took care of the problem for you." This is what you face with the union today.

Coming back to your conventional system, we feel that your conventional system will give you 125 pieces per hour in a new warehouse, 8 hours per day, that's a 1,000 cases per day per man, and it takes 80 order fillers to put out the amount of cases that we need, 80,000 cases per day. So we have a saving of 25 order fillers over 80 order fillers, which is a savings of 55 order fillers. We just settled the union contract where we had to give them a 77¢ per hour increase the first year and 50¢ the second year and 50¢ the third year, so they are now making over \$4.00 an hour and by 1971 it will be over \$5.00 an hour. We're looking at an order filler making better than 10,000 dollars per year, then you have your fringes on top of that. Being conservative again, if we're talking about 55 order fillers, per 10,000 dollars per year per order filler, we're talking about \$550,000 per year. We figure that the cost of an automated system over a conventional system will be approximately a million and a half dollars or so more than the conventional system. When I speak of the conventional system I am speaking of racks and fork trucks and so forth. If we are going to save \$550,000 per year we get a return on our money of approximately 33% which is a pretty good return. The figures I'm giving you here are conservative figures. We feel that we can do better than that so this is why we talk about an automated system today. Also, what's going to happen to the wage figures that I've given you, \$10,000 per year. In 5 years I think that man is not going to be a \$10,000 a year man anymore, he may be a \$15,000 a year man. If so, we're talking about getting our money back in much shorter time. I think it would be a crime today if we didn't take advantage of the systems that are available. I don't think that anything that we put in our warehouse in 1971 I will be satisfied with five years later because I think it will be perfected that much more. However, at some particular time you have to fish or cut bait and I've got a hunch that we have a system here that can work. Speaking of a

hunch, I must tell a joke before I sit down. I had a hunch one time when I went to the race track. I got into a cab and went out to the race track with a cab bill of \$7.00. When I bought my ticket it was \$7.77, the boy that took me to the seat was usher #7 and my seat was #7. I just waited for the 7th race and I bet the 7th horse and what do you think happened? He came in 7th. Thank you gentlemen.